What is Claimed is:

1. A method for operating a multi-type air conditioner having an outdoor unit, a distributor, and a plurality of indoor units, comprising the steps of:

calculating a total heating load of the indoor units that are to carry out heating, and a total cooling load of the indoor units that are to carry out cooling; and

determining an operation pattern of the outdoor unit according to the total cooling load and the total heating load.

2. The method as claimed in claim 1, wherein the total cooling load of the indoor units is Qc1x(Tcr1-Tcs1) + Qc2x(Tcr2-Tcs2) + Qc3x(Tcr3-Tcs3) + ----, where Qc1, Qc2, Qc3, ---- denote capacities of the indoor unit that are to carry out cooling, Tcs1, Tcs2, Tcs3, ---- denote operation temperatures of the indoor units, and Tcr1, Tcr2, Tcr3, ---- denote room temperatures of respective rooms, and

the total heating load of the indoor units is Qh1x(Ths1-Thr1) + Qh2x(Ths2-Thr2) + Qh3x(Ths3-Thr3) + ----, where Qh1, Qh2, Qh3, ---- denote capacities of the indoor unit that are to carry out heating, Ths1, Ths2, Ths3, ---- denote operation temperatures of the indoor units, and Thr1, Thr2, Thr3, ---- denote room temperatures of respective rooms.

3. The method as claimed in claim 1, wherein the step of determining an operation pattern of the outdoor unit includes the steps of;

comparing the total heating load and the total cooling load of the indoor units; and

the outdoor unit carrying out heating if the total heating load is greater than the total cooling load, and the outdoor unit carrying out cooling if the total heating load is smaller than the total cooling load.

4. The method as claimed in claim 3, wherein the step of determining an operation pattern of the outdoor unit further includes the steps of;

comparing the outdoor temperature to a preset reference temperature if the total heating load is equal to the total cooling load, and

the outdoor unit carrying out cooling if the outdoor temperature exceeds the reference temperature, and the outdoor unit carrying out heating if the outdoor temperature is below the reference temperature.

5. The method as claimed in claim 4, wherein the reference temperature is 15°C.

6. The method as claimed in claim 1, further comprising the steps of:

recalculating the total heating load and the total cooling load of the indoor units following operation temperature change of the indoor units; and

changing an operation pattern of the outdoor unit according to the recalculated total heating load and total cooling load.

7. The method as claimed in claim 6, wherein the recalculated total cooling load of the indoor units is Qc1x(Tcr1-Tcm1) + Qc2x(Tcr2-Tcm2) + Qc3x(Tcr3-Tcm3) + ----, where Qc1, Qc2, Qc3, ---- denote capacities of the indoor units that are to carry out cooling, Tcm1, Tcm2, Tcm3, ---- denote changed operation temperatures of the indoor units, and Tcr1, Tcr2, Tcr3, ---- denote room temperatures of respective rooms, and

the recalculated total heating load of the indoor units is Qh1x(Thm1-Thr1) + Qh2x(Thm2-Thr2) + Qh3x(Thm3-Thr3) + ----, where Qh1, Qh2, Qh3, ---- denote capacities

of the indoor units that are to carry out heating, Thm1, Thm2, Thm3, ---- denote changed operation temperatures of the indoor units, and Thr1, Thr2, Thr3, ---- denote room temperatures of respective rooms.

8. The method as claimed in claim 6, wherein the step of changing an operation pattern of the outdoor unit includes the steps of;

comparing the recalculated total cooling load and the recalculated total heating load, and

the outdoor unit carrying out heating if the total heating load is greater than the total cooling load, and

the outdoor unit carrying out cooling if the total heating load is smaller than the total cooling load.

9. The method as claimed in claim 8, wherein the step of changing an operation pattern of the outdoor unit further includes the steps of;

comparing the outdoor temperature to a preset reference temperature if the total heating load is equal to the total cooling load, and

the outdoor unit carrying out cooling if the outdoor temperature exceeds the reference temperature, and the outdoor unit carrying out heating if the outdoor temperature is below the reference temperature.

10. The method as claimed in claim 9, wherein the reference temperature is 15°C.

11. The method as claimed in claim 1, further comprising the steps of:

recalculating the total heating load or the total cooling load of the indoor units if the operation temperature of the indoor units is changed; and

changing the operation pattern of the outdoor unit according to the recalculated total heating load and the recalculated total cooling load of the indoor units.

12. The method as claimed in claim 11, wherein the step of recalculating the total heating load or the total cooling load of the indoor units includes the steps of;

determining the operation pattern of the outdoor unit, and

only recalculating the total cooling load of the indoor units if the operation pattern of the outdoor unit is cooling, and only recalculating the total heating load of the indoor units if the operation pattern of the outdoor unit is heating.

13. The method as claimed in claim 12, wherein the recalculated total cooling load of the indoor units is Qc1x(Tcr1-Tcm1) + Qc2x(Tcr2-Tcm2) + Qc3x(Tcr3-Tcm3) + ----, where Qc1, Qc2, Qc3, ---- denote capacities of the indoor units that are to carry out cooling, Tcm1, Tcm2, Tcm3, ---- denote changed operation temperatures of the indoor units, and Tcr1, Tcr2, Tcr3, ---- denote room temperatures of respective rooms, and

the recalculated total heating load of the indoor units is Qh1x(Thm1-Thr1) + Qh2x(Thm2-Thr2) + Qh3x(Thm3-Thr3) + ----, where Qh1, Qh2, Qh3, ---- denote capacities of the indoor units that are to carry out heating, Thm1, Thm2, Thm3, ---- denote changed operation temperatures of the indoor units, and Thr1, Thr2, Thr3, ---- denote room temperatures of respective rooms.

14. The method as claimed in claim 12, wherein the step of changing an operation

pattern of the outdoor unit includes the steps of;

comparing the recalculated total cooling/heating loads to the total cooling/heating loads before change of the operation temperature,

the outdoor unit continuing to carry out cooling if the recalculated total cooling load is greater than the total heating load before change of the operation temperature, and the outdoor unit carrying out heating if the recalculated total cooling load is smaller than the total heating load before change of the operation temperature, and

the outdoor unit continuing to carry out heating if the recalculated total heating load is greater than the total cooling load before change of the operation temperature, and the outdoor unit carrying out cooling if the recalculated total heating load is smaller than the total cooling load before change of the operation temperature.

15. The method as claimed in claim 14, wherein the step of changing an operation pattern of the outdoor unit further includes the steps of;

comparing the outdoor temperature to a preset reference temperature if the recalculated total cooling load is equal to the total heating load of the indoor units before change of the operation temperature, or if the recalculated total heating load is equal to the total cooling load of the indoor units before change of the operation temperature, and

the outdoor unit carrying out cooling if the outdoor temperature exceeds the reference temperature, and the outdoor unit carrying out heating if the outdoor temperature is below the reference temperature.

16. The method as claimed in claim 15, wherein the reference temperature is 15°C.

17. The method as claimed in claim 12, wherein the recalculated total cooling load is calculated by adding the total cooling load of the indoor units before change of the operation temperature and an additional cooling load required following change of the operation temperature, and

the recalculated total heating load is calculated by adding the total heating load of the indoor units before change of the operation temperature and an additional heating load required following change of the operation temperature.

18. The method as claimed in claim 17, wherein the additional cooling load of the indoor units is Qc1x(Tcs1-Tcm1) + Qc2x(Tcs2-Tcm2) + Qc3x(Tcs3-Tcm3) + ----, where Qc1, Qc2, Qc3, ---- denote capacities of the indoor unit that are to carry out cooling, Tcm1, Tcm2, Tcm3, ---- denote operation temperatures of the indoor units that are to carry out cooling after change, and Tcs1, Tcs2, Tcs3, ---- denote operation temperatures of the indoor units before the change, and

the additional heating load of the indoor units is Qh1x(Thm1-Ths1) + Qh2x(Thm2-Ths2) + Qh3x(Thm3-Ths3) + ----, where Qh1, Qh2, Qh3, ---- denote capacities of the indoor unit that are to carry out heating, Thm1, Thm2, Thm3, ---- denote operation temperatures of the indoor units that are to heat the rooms after change, and Ths1, Ths2, Ths3, ---- denote room temperatures of respective rooms before the change.

19. The method as claimed in claim 17, wherein the step of changing an operation pattern of the outdoor unit includes the steps of;

comparing the recalculated total cooling/heating loads to the total cooling/heating loads before change of the operation temperature,

the outdoor unit continuing to carry out cooling if the recalculated total cooling load is greater than the total heating load before change of the operation temperature, and the outdoor unit carrying out heating if the recalculated total cooling load is smaller than the total heating load before change of the operation temperature, and

the outdoor unit continuing to carry out heating if the recalculated total heating load is greater than the total cooling load before change of the operation temperature, and the outdoor unit carrying out cooling if the recalculated total heating load is smaller than the total cooling load before change of the operation temperature.

20. The method as claimed in claim 19, wherein the step of changing an operation pattern of the outdoor unit further includes the steps of;

comparing the outdoor temperature to a preset reference temperature if the recalculated total cooling load is equal to the total heating load of the indoor units before change of the operation temperature, or if the recalculated total heating load is equal to the total cooling load of the indoor units before change of the operation temperature, and

the outdoor unit carrying out cooling if the outdoor temperature exceeds the reference temperature, and the outdoor unit carrying out heating if the outdoor temperature is below the reference temperature.